

CLAIMS

What is claimed is:

1. A router using source routing for multiple hops of a route through a network,
each of the multiple hops being encoded at a source by port descriptors in a
5 header of a packet, the router comprising:
input router storage which receives port descriptors from a routing
header of a packet, the port descriptors source coding each hop of the route
through the network;
a port descriptor extractor which extracts a next hop port descriptor from
10 the routing header; and
a header updating circuit which generates a new header representing a
remaining route, the header updating circuit inserting an implied exit field in the
new header.
- 15 2. A method of routing multiple hops of a route through a network, each of the
multiple hops being encoded at a source by port descriptors in a header of a
packet, the method comprising, at a router:
storing port descriptors from a routing header of a packet, the port
descriptors source coding each hop of the route through the network;
20 extracting a next hop port descriptor from the routing header; and
inserting an implied exit field in generating a new routing header
representing a remaining route.